BREWER YEAST

ANGEL YEAST CO., LTD.

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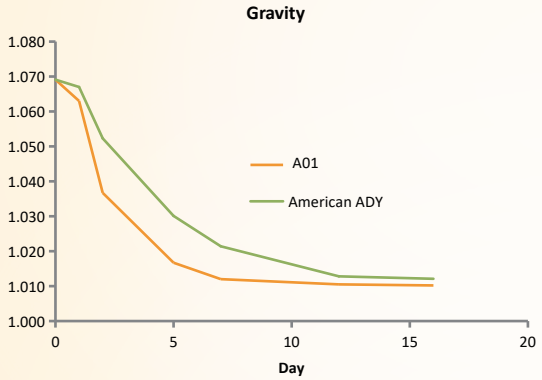
A01
American Ale Yeast

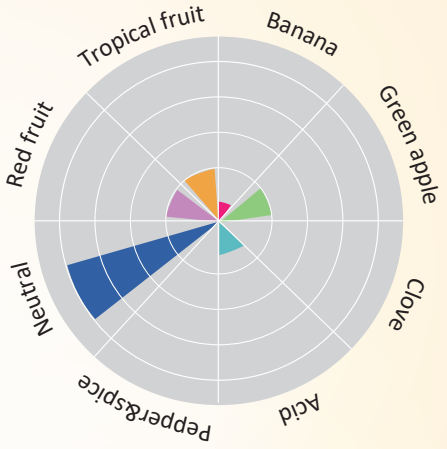
DESCRIPTION

A01 is typical American ale yeast with a clean, neutral and crisp flavor, producing low fruity esters. This yeast is with wide adaptability for many kinds of American beers, highlighting the characteristics and style of malt and hops.

Fermentation Profile



Flavor characteristics



BREWING PROPERTIES

Temperature range: 15-25°C
POF Phenotype: Negative
Diastaticus: Negative
Apparent attenuation: 75-83%
Alcohol tolerance: 10%(v/v)
Flocculation: Medium
Produce very clean, crisp beers with low diacetyl

MICROBIOLOGICAL ANALYSIS

Species: *Saccharomyces cerevisiae*
Dry weight: ≥ 93%
Living yeast cell: ≥ $4.0*10^9$ cfu /g
Wild yeast: ≤$1.0*10^3$ cfu /g
Total bacteria: ≤$5.0*10^3$ cfu /g
Lactobacillus: ≤$1.0*10^3$ cfu /g

Pathogenic micro-organisms: in accordance with regulation; before releasing to markets, all products must pass a series of detection in our factory.

USAGE

Dosage: 50 to 100 g/hl, increasing yeast dosage under difficult fermentation conditions and high gravity.

Rehydration method:

- Rehydrate the yeast in 10 times its weight of clean boiled water at 25-30°C in a sterile container.
- Ensure all the yeast contact with water, leave it for 15 minutes and then gently stir to suspend yeast completely and rehydrate fully. Leave it for another 5 minutes at 25-30°C.
- The rehydration process does not exceed 30 minutes. If it is above 30 minutes, yeast viability will be hurt.
- Pitch the rehydration yeast into the fermentation vessel. The temperature difference between the wort to be inoculated and the rehydration yeast should never be over 10°C.

Storage

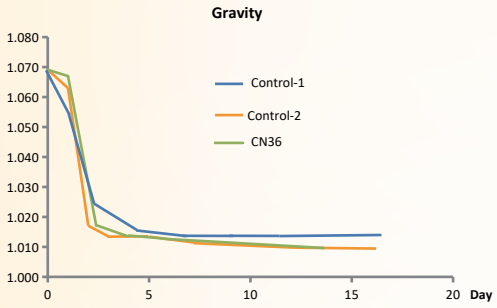
Store in low temperature (≤10°C) and dry place, with the shelf life of 24 months.

CN36
British Ale yeast

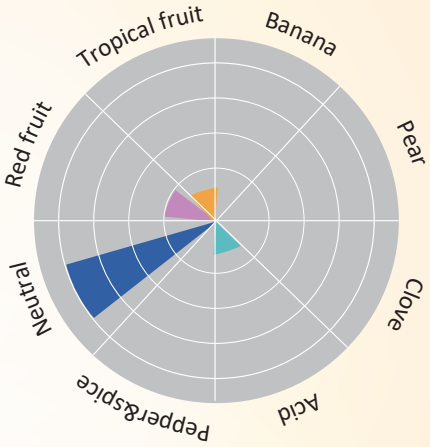
DESCRIPTION

CN 36 is one of classic British ale yeasts with high flocculation and good attenuation. This yeast ferments dry and crisp, producing well-balanced beers with a clean and neutral finish. Excellent for all English style ales including pale ale, IPA, porter, brown ale, and high gravity beer. As a neutral ale yeast, CN36 produces slight fruity ester aromas that allows beer to develop the full flavor of malt and hops. High flocculation makes the beer bright, clear quickly.

Fermentation Profile



Flavor characteristics



BREWING PROPERTIES

Temperature range: 15—25°C
Apparent attenuation: 77-86%
Diastaticus: Negative
POF Phenotype: Negative
Alcohol tolerance: 13%(v/v)
Flocculation: high
Produces slight fruity ester and neutral flavor.

MICROBIOLOGICAL ANALYSIS

Species: *Saccharomyces cerevisiae*
Dry weight: ≥ 93%
Living yeast cell: ≥ $4.0*10^9$ cfu/g
Wild yeast: ≤$1.0*10^3$ cfu /g
Total bacteria: ≤$5.0*10^3$ cfu /g
Lactobacillus: ≤$1.0*10^3$ cfu /g

Pathogenic micro-organisms: in accordance with regulation; before releasing to markets, all products must pass a series of detection in our factory.

USAGE

Dosage: 50 to 100 g/hl, increasing yeast dosage under difficult fermentation conditions and high gravity.

Rehydration method:

- Rehydrate the yeast in 10 times its weight of clean boiled water at 25-30°C in a sterile container.
- Ensure all the yeast contact with water, leave it for 15 minutes and then gently stir to suspend yeast completely and rehydrate fully. Leave it for another 5 minutes at 25-30°C.
- The rehydration process does not exceed 30 minutes. If it is above 30 minutes, yeast viability will be hurt.
- Pitch the rehydration yeast into the fermentation vessel. The temperature difference between the wort to be inoculated and the rehydration yeast should never be over 10°C.

Storage

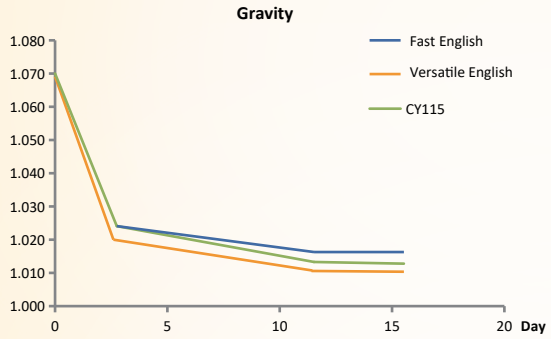
Store in low temperature (≤10°C) and dry place, with the shelf life of 24 months.

CY115
British Ale yeast

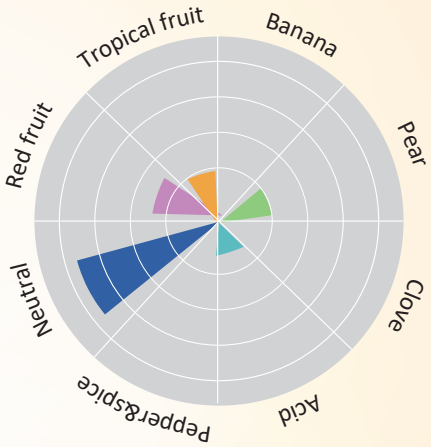
DESCRIPTION

CY115 is a beer strain selected for English ale with high flocculation and clarity. It produces mild sweet fruit esters characterized by apple, but also allows malt character to be perceived. Produces beer with moderate body and soft mouthfeel. Perfect for English ales, pale ales and IPA's.

Fermentation Profile



Flavor characteristics



BREWING PROPERTIES

Fermentation temperature: 15—25°C
Apparent attenuation: 75-83%
Diastaticus: Negative
POF Phenotype: Negative
Alcohol tolerance: 10%(v/v)
Flocculation: high
It forms a compact sediment on bottom of tank to help improve beer clarity.
Produces mild sweet fruit aroma and flavour characteristic of fruit aroma.

MICROBIOLOGICAL ANALYSIS

Species: *Saccharomyces cerevisiae*
Dry weight: ≥ 93%
Viable cells: ≥ 4.0*10⁹ cfu/g
Wild yeast: ≤1.0*10³ cfu /g
Total bacteria: ≤5.0*10³ cfu /g
Lactobacillus: ≤1.0*10³ cfu /g

Pathogenic micro-organisms: in accordance with regulation; before releasing to markets, all products must pass a series of detection in our factory.

USAGE

Dosage: 50 to 100 g/hl, increasing yeast dosage under difficult fermentation conditions and high gravity.

Rehydration method:

- Rehydrate the yeast in 10 times its weight of clean boiled water at 25-30°C in a sterile container.
- Ensure all the yeast contact with water, leave it for 15 minutes and then gently stir to suspend yeast completely and rehydrate fully. Leave it for another 5 minutes at 25-30°C.
- The rehydration process does not exceed 30 minutes. If it is above 30 minutes, yeast viability will be hurt.
- Pitch the rehydration yeast into the fermentation vessel. The temperature difference between the wort to be inoculated and the rehydration yeast should never be over 10°C.

Storage

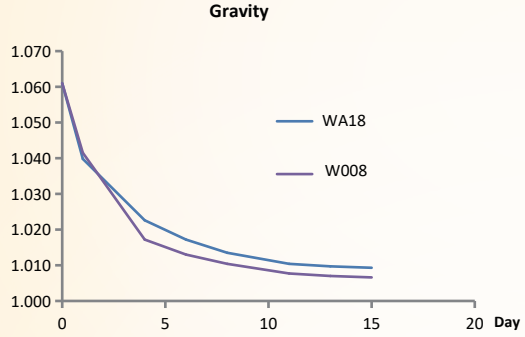
Store in low temperature (≤10°C) and dry place, with the shelf life of 24 months.

W008
Wheat Ale Yeast

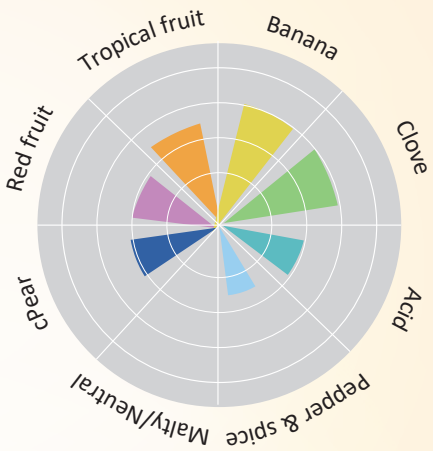
DESCRIPTION

- W008 is a typical yeast used for brewing wheat beer characterized with fruity and phenol flavor notes. It has high attenuation and produces a balance of fruity esters and typical clove phenols of wheat beers. It exhibits low flocculation, slow sedimentation and the final beer finishes dry with a smooth mouthfeel.

Fermentation Profile



Flavor characteristics



USAGE

Dosage: 50 to 100 g/hl, increasing yeast dosage under difficult fermentation conditions and high gravity.

Rehydration method:

- Rehydrate the yeast in 10 times its weight of clean boiled water at 25-30°C in a sterile container.
- Ensure all the yeast contact with water, leave it for 15 minutes and then gently stir to suspend yeast completely and rehydrate fully. Leave it for another 5 minutes at 25-30°C.
- The rehydration process does not exceed 30 minutes. If it is above 30 minutes, yeast viability will be hurt.
- Pitch the rehydration yeast into the fermentation vessel. The temperature difference between the wort to be inoculated and the rehydration yeast should never be over 10°C.

Storage

Store in low temperature (≤10°C) and dry place, with the shelf life of 24 months.

BREWING PROPERTIES

Temperature range: 15-25°C
Apparent attenuation: 83-90%
POF Phenotype: Positive
Diastaticus: Positive
Alcohol tolerance: 10%(v/v)
Flocculation: Low
Sendimentation: Slow
Bold: Moderate and quick start to fermentation

MICROBIOLOGICAL ANALYSIS

Species: *Saccharomyces cerevisiae*
Dry weight: ≥ 93%
Living yeast cell: ≥ $8.0*10^9$ cfu/g
Wild yeast: ≤$1.0*10^3$ cfu /g
Total bacteria: ≤$5.0*10^3$ cfu /g
Lactobacillus: ≤$1.0*10^3$ cfu /g

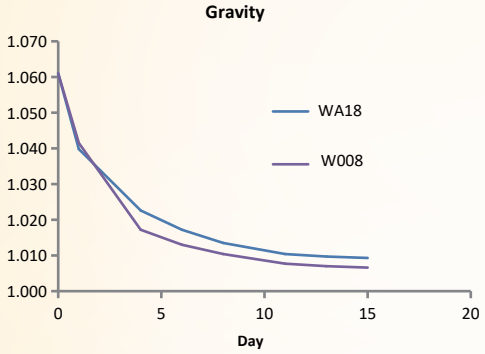
Pathogenic micro-organisms: in accordance with regulation; before releasing to markets, all products must pass a series of detection in our factory.

WA18
Wheat Ale Yeast

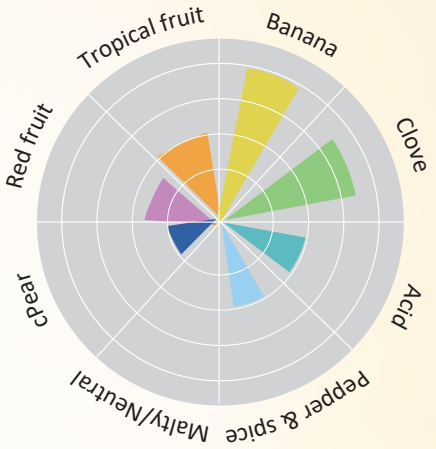
DESCRIPTION

- WA18 is a classic German-style wheat beer yeast with low flocculation, producing typical phenolic, spicy and fruity aromas to enhance the typical flavour of wheat beer. This yeast is ideal for the production of various top-fermented wheat beers, such as Weizen and Witbier beers.

Fermentation Profile



Flavor characteristics



BREWING PROPERTIES

Optimal temperature: 15 - 25°C
Apparent attenuation: 73-85%
POF Phenotype: Positive
Diastaticus: Negative
Alcohol tolerance: 10%(v/v)
Flocculation: Low
Bold: Moderate and quick start to fermentation

MICROBIOLOGICAL ANALYSIS

Species: *Saccharomyces cerevisiae*
Dry weight: ≥ 93%
Living yeast cell: ≥ $4.0*10^9$ cfu/g
Wild yeast: ≤$1.0*10^3$ cfu /g
Total bacteria: ≤$5.0*10^3$ cfu /g
Lactobacillus: ≤$1.0*10^3$ cfu /g

Pathogenic micro-organisms: in accordance with regulation; before releasing to markets, all products must pass a series of detection in our factory.

USAGE

Dosage: 50 to 100 g/hl, increasing yeast dosage under difficult fermentation conditions and high gravity.

Rehydration method:

- Rehydrate the yeast in 10 times its weight of clean boiled water at 25-30°C in a sterile container.
- Ensure all the yeast contact with water, leave it for 15 minutes and then gently stir to suspend yeast completely and rehydrate fully. Leave it for another 5 minutes at 25-30°C.
- The rehydration process does not exceed 30 minutes. If it is above 30 minutes, yeast viability will be hurt.
- Pitch the rehydration yeast into the fermentation vessel. The temperature difference between the wort to be inoculated and the rehydration yeast should never be over 10°C.

Storage

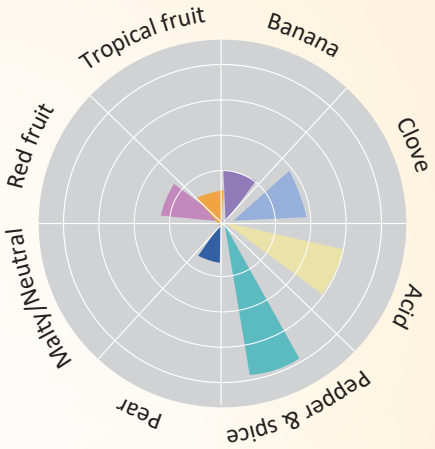
Store in low temperature (≤10°C) and dry place, with the shelf life of 24 months.

CS31
Belgian Saison Yeast

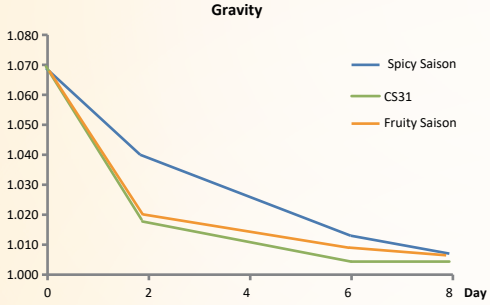
DESCRIPTION

CS31 is a classic Belgian style season yeast with high aroma intensity and very high attenuation levels due to its diastatic ability. It produces peppery and spicy aromas which are more prevalent at lower fermentation temperatures (<20°C), whereas the fruity expression dominates at higher fermentation temperatures (27°C+). The flavour of CS31 will further develop during bottle conditioning. The diastatic ability of CS31 can lead to refermentation of packaged beer, care should be taken to ensure fermentation is fully exhausted prior to finished packaging into bottles and cans.

Flavor characteristics



Fermentation Profile



BREWING PROPERTIES

Temperature range: 10-30°C
POF Phenotype: Positive
Diastaticus: Positive
Apparent attenuation: 83-94%
Alcohol tolerance: 14%(v/v).
Flocculation: Slow
Produces a dry refreshing beer with sweet fruit aromas and flavour such as pear, apple, and bubblegum.

MICROBIOLOGICAL ANALYSIS

Species: *Saccharomyces cerevisiae*
Dry weight: ≥ 93%
Living yeast cell: ≥ 8.0*10⁹ cfu/g
Wild yeast: ≤1.0*10³ cfu /g
Total bacteria: ≤5.0*10³ cfu /g
Lactobacillus: ≤1.0*10³ cfu /g

Pathogenic micro-organisms: in accordance with regulation; before releasing to markets, all products must pass a series of detection in our factory.

USAGE

Dosage: 50 to 100 g/hl, increasing yeast dosage under difficult fermentation conditions and high gravity.

Rehydration method:

- Rehydrate the yeast in 10 times its weight of clean boiled water at 25-30°C in a sterile container.
- Ensure all the yeast contact with water, leave it for 15 minutes and then gently stir to suspend yeast completely and rehydrate fully. Leave it for another 5 minutes at 25-30°C.
- The rehydration process does not exceed 30 minutes. If it is above 30 minutes, yeast viability will be hurt.
- Pitch the rehydration yeast into the fermentation vessel. The temperature difference between the wort to be inoculated and the rehydration yeast should never be over 10°C.

Storage

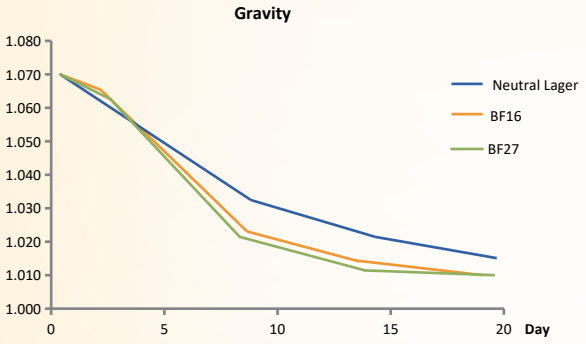
Store in low temperature (≤10°C) and dry place, with the shelf life of 24 months.

BF16 Lager Yeast

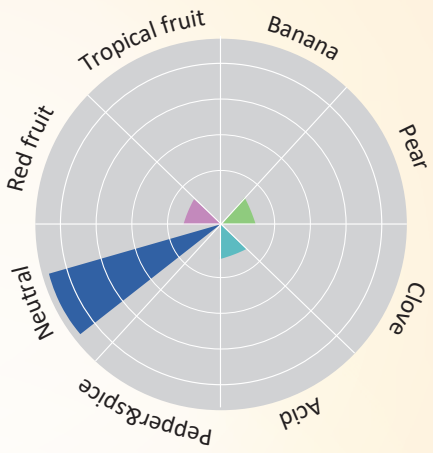
DESCRIPTION

BF16 is a classic Swiss lager yeast to brew a wide range of lager and pilsen beers with quick start fermentation and high attenuation. The yeast profile allows to brew a high drinkable lager beer. It has an excellent fermentation performance, and the ability to produce clean, bright lagers with minimal diacetyl, refreshing taste and floral notes.

Fermentation Profile



Flavor characteristics



BREWING PROPERTIES

Fermentation temperature: 10-20°C
Apparent attenuation: 80-84%
POF Phenotype: Negative
Diastaticus: Negative
Alcohol tolerance: 10%(v/v)
Fermentation performance: Medium to high.
Flocculation: High
Produces crisp and clean beers with subtle fruity character

MICROBIOLOGICAL ANALYSIS

Species: *Saccharomyces pastorianus*
Dry weight: ≥ 93%
Living yeast cell: ≥ $4.0*10^9$ cfu/g
Wild yeast: ≤$1.0*10^3$ cfu /g
Total bacteria: ≤$5.0*10^3$ cfu /g
Lactobacillus: ≤$1.0*10^3$ cfu /g

Pathogenic micro-organisms: in accordance with regulation; before releasing to markets, all products must pass a series of detection in our factory.

USAGE

Dosage: 80 to 150 g/hl, increasing yeast dosage under difficult fermentation conditions and high gravity.

Rehydration method:

- Rehydrate the yeast in 10 times its weight of clean boiled water at 25-30°C in a sterile container.
- Ensure all the yeast contact with water, leave it for 15 minutes and then gently stir to suspend yeast completely and rehydrate fully. Leave it for another 5 minutes at 25-30°C.
- The rehydration process does not exceed 30 minutes. If it is above 30 minutes, yeast viability will be hurt.
- Pitch the rehydration yeast into the fermentation vessel. The temperature difference between the wort to be inoculated and the rehydration yeast should never be over 10°C.

Storage

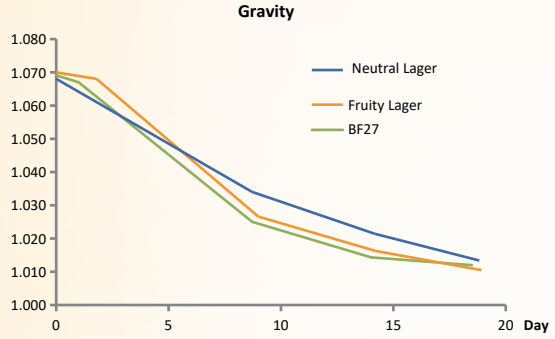
Store in low temperature (≤ 10°C) and dry place, with the shelf life of 24 months.

BF27 Lager Yeast

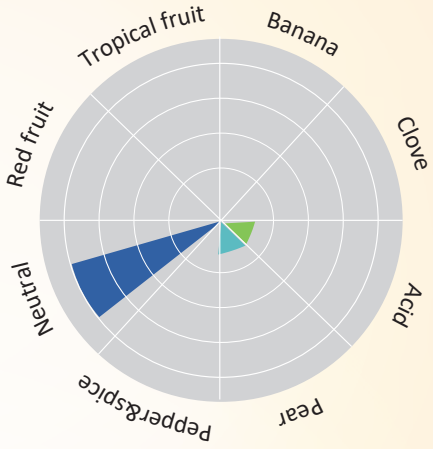
DESCRIPTION

BF27 is a classic Weihenstephan bottom-fermented beer yeast, widely used lager yeast in the world, and at cool temperatures it exhibits a short lag phase with strong steady kinetics. It is a well-rounded lager yeast with modest production of floral and fruity esters. The beer produced with BF27 is very clean, crisp, and dry.

Fermentation Profile



Flavor characteristics



BREWING PROPERTIES

Fermentation temperature: 10-20°C
Apparent attenuation: 80-85%
Diastaticus: Negative
Alcohol tolerance: 10%(v/v)
Fermentation performance: Medium to high
Flocculation: High
Dry fermenting with low residual sweetness
Produces a crisp beer characteristic of the lager style

MICROBIOLOGICAL ANALYSIS

Species: *Saccharomyces pastorianus*
Dry weight: ≥ 93%
Living yeast cell: ≥ $4.0*10^9$ cfu/g
Wild yeast: ≤$1.0*10^3$ cfu /g
Total bacteria: ≤$5.0*10^3$ cfu /g
Lactobacillus: ≤$1.0*10^3$ cfu /g

Pathogenic micro-organisms: in accordance with regulation; before releasing to markets, all products must pass a series of detection in our factory.

USAGE

Dosage: 80 to 150 g/hl, increasing yeast dosage under difficult fermentation conditions and high gravity.

Rehydration method:

- Rehydrate the yeast in 10 times its weight of clean boiled water at 25-30°C in a sterile container.
- Ensure all the yeast contact with water, leave it for 15 minutes and then gently stir to suspend yeast completely and rehydrate fully. Leave it for another 5 minutes at 25-30°C.
- The rehydration process does not exceed 30 minutes. If it is above 30 minutes, yeast viability will be hurt.
- Pitch the rehydration yeast into the fermentation vessel. The temperature difference between the wort to be inoculated and the rehydration yeast should never be over 10°C.

Storage

Store in low temperature (≤10°C) and dry place, with the shelf life of 24 months.

Angel BrewNutri-Z Brewing Nutrient

DESCRIPTION

BrewNutri-Z is a complex nutrient with high zinc used to increase the health of yeast, improve yeast fermentation and re-pitching performance. Zinc is the important cofactor for protein synthesis and enzymatic reactions during yeast growth and alcohol fermentation and improves the uptake of maltose and maltotriose. The deficience of zinc can cause fermentation and flocculation problems.

BrewNutri-Z is designed for using at the kettle or fermentation in all types of beer, especially high gravity wort, or in re-pitching yeast fermentation. The benefit of BrewNutri-Z is micronutrients (such as zinc, growth factor), which are absorbed by beer yeast during brewing. Adding BrewNutri-Z can improve fermentation profile, reduce fermentation time, enhance yeast viability and vitality, influence the production of higher alcohols and their corresponding esters.

In high-gravity, or serial repitching fermentations, BrewNutri-Z is necessary to help yeast get through the stressful environments. BrewNutri-Z is added either into the boil kettle or the wort in the fermentation vessel directly.

PRODUCT SPECIFICATIONS

Appearance: tan color with yeast-like aroma
Dry weight: > 93,0% w/w
Zn: 5,50 – 6,50 % w/w

MICROBIOLOGICAL ANALYSIS

Total bacteria count: < 10,000 CFU/g
Yeast and mold: < 100 CFU/g
E.coli: Negative
Salmonella: Negative

USAGE

Dosage: 0.5-1 g/hl depending on wort composition
Dissolve in sterilized water. Add the solution to kettle 10-15 minutes prior to end of boil or to the wort in fermentation vessel directly.

Store in cool and dry environment.
Shelf life at the recommended storage temperature is 3 years.

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